

REMARKS

Claims 21-23 are pending in the application. Claims 21-23 are amended herein without prejudice and without acquiescence, solely to further the prosecution of this case. No new matter is entered herein.

I. Interview Summary

On July 31, 2007, the undersigned had a teleconference with Examiner Baskar to discuss potential claim amendments. In particular, the participants discussed making an amendment of claims 21-22 to “the” polypeptide of SEQ ID NO:46. Examiner Baskar agreed that such an amendment would further the case.

Applicants thank Examiner Baskar for the courtesy of the interview.

II. Issues Under 35 U.S.C. §112, second paragraph

Claims 21-23 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter of the invention.

In particular, the Examiner rejects claim 23 for lacking antecedent basis for “SEQ ID NO:46.” Applicants consider the rejection unfounded, because the term has antecedent basis in claim 21, but Applicants nevertheless submit an amendment herein to recite that the “polypeptide” is dispersed in a carrier, even though the polypeptide is SEQ ID NO:46.

Applicants respectfully request withdrawal of the rejection.

III. Issues Under 35 U.S.C. §112, first paragraph

Claims 21-23 are rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking adequate written description for the claims.

The Examiner interpreted the claims as encompassing compositions with polypeptides of two amino acids of SEQ ID NO:46, because the claims recite “a” polypeptide of SEQ ID NO:46 instead of “the” polypeptide of SEQ ID NO:46. Applicants assert that the claims are

clear to encompass a polypeptide *of SEQ ID NO:46*, which clearly entails the entire contiguous sequence of SEQ ID NO:46. Nevertheless, solely to further the prosecution of this case, Applicants amend claims 21-22 herein to recite “the polypeptide of SEQ ID NO:46” and note that the Examiner acknowledges on page 4 of the Action (third full paragraph) that there is written description for such a polypeptide: “The specification describes...a...polypeptide of SEQ ID NO:46 that can be used to inhibit or prevent *E. canis* infection.”

Applicants respectfully request withdrawal of the rejection.

IV. Issues Under 35 U.S.C. §103(a)

Claims 21-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ohashi *et al.* (1998; Infect. Immun., 66:132-139; hereinafter referred to as “Ohashi A”) in view of Ohashi *et al.* (1998; J. Clin. Microbiol.; hereinafter referred to as “Ohashi B”). Applicants respectfully disagree.

The Examiner continues to apply the interpretation of the claims encompassing two amino acids of SEQ ID NO:46. Again, Applicants assert that the claims clearly encompass the entire contiguous sequence of SEQ ID NO:46 but nevertheless amend the claims to recite “the” polypeptide of SEQ ID NO:46 to further prosecution of the case. Nevertheless, the rejected claims are not obvious in either interpretation of the claims.

The Examiner fails to make a *prima facie* case of obviousness because all of the claim elements are not taught or suggested. In particular, the polypeptide of SEQ ID NO:46 is not described in Ohashi A or Ohashi B, nor is it provided in the GenBank® sequences recited therein ***that were present at the time of filing of the present application***. As described in the Response filed March 29, 2006, the GenBank® sequences were updated ***after*** the filing of the present application, yet even then they did not teach the polypeptide of SEQ ID NO:46. The Examiner cannot discount the fact that no identical or even very similar sequence to SEQ ID NO:46 was taught anywhere in the art ***at the time of filing of the present invention***. On page 7 of the Action, the Examiner ignores this fact by stating that “...regardless of when the accession number was created, the sequence of the 30kd antigen is set forth in the reference” (page 7 of the Action). However, the fact ***cannot*** be disregarded by the Examiner that the

sequence of SEQ ID NO:46 or even a very similar sequence was *not* set forth in the reference.

Furthermore, even if a sequence similar to SEQ ID NO:46 was known *at the time of filing*, the Examiner fails to make a *prima facie* case of obviousness by failing to note where in Ohashi A there is a teaching or suggestion to employ SEQ ID NO:46 for inhibiting *E. canis* infection, and the Examiner also fails to note where in Ohashi A there is a teaching, suggestion, or reason to combine with the subject matter of Ohashi B to achieve Applicants' invention. Although the P28 proteins of *E. chaffeensis* react with the antibody and serum of a 30 kD protein of *E. canis* in the western in FIG. 3 of Ohashi A, there is no indication what the nature of the antigens are in the band therein, and certainly no teaching or suggestion that the *E. chaffeensis* antibody reacts with Applicants' particular SEQ ID NO:46.

In addition, even if the Examiner alleges that there is an "apparent reason" to combine the two reference, pursuant to *KSR (KSR Intl. Co. v. Teleflex, Inc., No. 04-1350. April 30, 2007)*, for example, Applicants assert that there is no apparent reason to utilize SEQ ID NO:46 in particular, especially given that it was an *unknown protein at the time of filing* and the Ohashi references concern different P30 proteins. Furthermore, there is no "apparent reason" for the skilled artisan to seek a reference for inhibiting infection (Ohashi B) when considering a reference for serodiagnosis (Ohashi). It would not be obvious to combine the references for any purpose when they are reporting different objectives for different organisms.

Therefore, Applicants assert that the invention is not obvious over the combination of Ohashi A with Ohashi B and respectfully request withdrawal of the rejection.

V. Conclusion

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Applicants believe no fee is due with this response other than the fee for the Petition for Extension of Time of One Month. However, if another fee is due, please charge our

Deposit Account No. 06-2375, under Order No. AH-CLFR:181USD5 from which the undersigned is authorized to draw.

Dated: August 2, 2007

Respectfully submitted,

By /Melissa L. Sistrunk/

Melissa L. Sistrunk
Registration No.: 45,579
FULBRIGHT & JAWORSKI L.L.P.
Fulbright Tower
1301 McKinney, Suite 5100
Houston, Texas 77010-3095
(713) 651-5151
(713) 651-5246 (Fax)
Agent for Applicant